



Edwards EXT-250H, EXT-250Hi

Technical Specifications

Parameter	EXT250H	EXT250Hi	Notes
Mass	8.0 kg	8.0 kg	
Inlet-flange	DN100ISO-K/ DN100CF	DN100ISO-K	
Outlet-flange	DN25NW	DN25NW	
Vent-port	1/8 inch BSP	1/8 inch BSP	
Interstage-port	-	DN25NW	
Purge-port	1/8 inch BSP	1/8 inch BSP	
Inlet pumping speed			
N ₂ [†]	220 l s ⁻¹	220 l s ⁻¹	Pb < 5 mbar (500 Pa) Qi < 70 sccm (1.18 mbar l s ⁻¹ , 118 Pa l s ⁻¹)
He [†]	230 l s ⁻¹	230 l s ⁻¹	Pb < 1 mbar (100 Pa) Qi = 0 sccm
H ₂ [†]	180 l s ⁻¹	180 l s ⁻¹	Pb < 0.5 mbar (50 Pa) Qi = 0 sccm
Inlet compression ratio			
N ₂ [†]	> 2 x 10 ⁷	> 2 x 10 ⁷	Pb = 5 mbar (500 Pa)
He [†]	> 1.6 x 10 ⁴	> 1.6 x 10 ⁴	Pb = 2 mbar (200 Pa)
H ₂ [†]	1500	1500	Pb = 1 x 10 ⁻² mbar (1 Pa)
Interstage pumping speed*			
N ₂ [†]	-	8 l s ⁻¹	Pb = 5 mbar (500 Pa) Qi = 100 sccm (1.69 mbar l s ⁻¹ , 169 Pa l s ⁻¹) Qp < 20 sccm (0.33 mbar l s ⁻¹ , 33 Pa l s ⁻¹)
N ₂ [†]	-	11 l s ⁻¹	Pb = 5 mbar (500 Pa) Qi = 240 sccm (4.5 mbar l s ⁻¹ , 405 Pa l s ⁻¹) Qp = 0 sccm
Ultimate pressure ‡	< 5 x 10 ⁻⁹ mbar < 5 x 10 ⁻⁷ Pa	< 5 x 10 ⁻⁹ mbar < 5 x 10 ⁻⁷ Pa	
Minimum backing pump displacement	0.6 m ³ h ⁻¹	0.6 m ³ h ⁻¹	
Maximum continuous inlet pressure **			
water-cooling at 15 °C **	3 x 10 ⁻¹ mbar, 30 Pa	3 x 10 ⁻¹ mbar, 30 Pa	
air-cooling at 35 °C **	3 x 10 ⁻² mbar, 3 Pa	3 x 10 ⁻² mbar, 3 Pa	
Recommended backing pump ††	RV3	RV3	
Operating attitude	Vertical and upright through to horizontal ± 2°		
Nominal rotational speed	60000 r min ⁻¹	60000 r min ⁻¹	
Standby rotational speed	42000 r min ⁻¹	42000 r min ⁻¹	
Starting time to 90% speed			
EXC100E/L, EXDC80	190 sec	190 sec	
EXC120	130 sec	130 sec	
EXC300, EXDC160	100 sec	100 sec	

* Pumping speeds are without inlet-screen or inlet-strainer (EXT250Hi only). Inlet-screens and inlet-strainers reduce speed by approximately 10%.

† Pb = backing pressure, Qi = flow through the interstage-port (EXT250Hi only), Qp = flow through pump-inlet.

‡ Ultimate pressure 48 hours after bakeout with 2-stage rotary vane backing-pump.

** Above this pressure, rotational speed drops below nominal.

†† A larger backing-pump may be required for maximum throughput.



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Edwards EXT-250H, EXT-250Hi Applications

- mass spectrometry • GCMS • LCMS • ICPMS • electron microscopy
- surface analytical equipment • fusion technology • space research
- laser systems • electron tube manufacturing • physics experiments
- RGA • nuclear physics • thin film • vacuum metallurgy • powder materials processing

